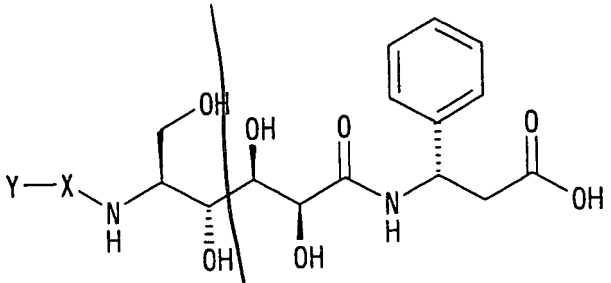
CLAIMS

1. A compound of the formula:



(I)

[wherein X is L-serine residue, L-asparagine residue or (S)-2-aminobutyric acid residue and Y is α-L-amino acid residue] or its salt.

2. A compound as claimed in claim 1, wherein X is (S)-2-aminobutyric acid residue.

3. A compound as claimed in claim 1, wherein Y is norvaline residue, isoleucine residue or methionine residue.

4. A compound as claimed in claim 1, which is (S)-3-[(2S,3R,4R,5S)-5-(L-norvalyl-(S)-2-aminobutyryl)amino-2,3,4,6-tetrahydroxyhexanoyl]amino-3-phenylpropionic acid or its salt.

5. A compound as claimed in claim 1, which is (S)-3-[(2S,3R,4R,5S)-5-(L-isoleucyl-(S)-2-aminobutyryl)amino-2,3,4,6-tetrahydroxyhexanoyl]amino-3-phenylpropionic acid or its salt.

6. A pro-drug of the compound claimed in claim 1.

7. A pharmaceutical composition which contains the compound claimed in claim 1 or its pro-drug.

8. A pharmaceutical composition as claimed in claim 7, which is an anti-Helicobacter pylori agent.

9. A pharmaceutical composition as claimed in claim 8, which is a preventing and treating agent of Helicobacter pylori infectious disease.

10. A pharmaceutical composition as claimed in claim 9, wherein Helicobacter pylori infectious disease is gastric or duodenal ulcer, gastritis, gastric cancer or gastric MALT lymphoma.

11. A pharmaceutical composition as claimed in claim 7, which

is a gastric mucosa adhesive pharmaceutical composition.

12. A pharmaceutical composition as claimed in claim 11, wherein a gastric mucosa adhesive pharmaceutical composition contains (a) a compound as claimed in claim 1, (b) a lipid and/or a polyglycerol fatty acid ester and (c) a viscogenic agent capable of being viscous with water.

13. A pharmaceutical composition as claimed in claim 12, wherein (c) the viscogenic agent is an acrylic polymer.

14. A pharmaceutical composition as claimed in claim 12, which further contains (d) a material which swells the viscogenic agent.

15. A pharmaceutical composition as claimed in claim 14, (d) the material which swells the viscogenic agent is curdlan and/or a low-substituted hydroxypropylcellulose.

16. A pharmaceutical composition which contains both of a compound as claimed in claim 1 or its pro-drug and the other antibacterial agent and/or an antiulcerative agent.

17. A method for treating or preventing a mammal suffering from a Helicobacter pylori infectious disease, which comprises administering an effective amount of a compound according to claim 1 or its pro-drug optionally together with a pharmaceutically acceptable carrier, diluent or excipient, to a patient suffering from the disease.

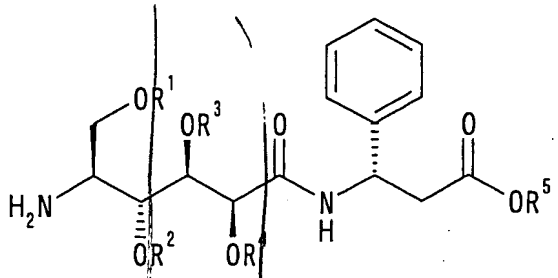
18. A method as claimed in claim 17, wherein Helicobacter pylori infectious disease is gastric or duodenal ulcer, gastritis, gastric cancer or gastric MALT lymphoma.

19. Use of the compound according to claim 1 or its pro-drug for manufacturing of a pharmaceutical composition for a Helicobacter pylori infectious disease.

20. Use as claimed in claim 19, wherein the composition is for treating or preventing a Helicobacter pylori infectious disease.

21. Use as claimed in claim 20, wherein the Helicobacter pylori infectious disease is gastric or duodenal ulcer, gastritis, gastric cancer or gastric MALT lymphoma.

22. A method for producing a compound claimed in claim 1, which comprises reacting a compound of the formula:



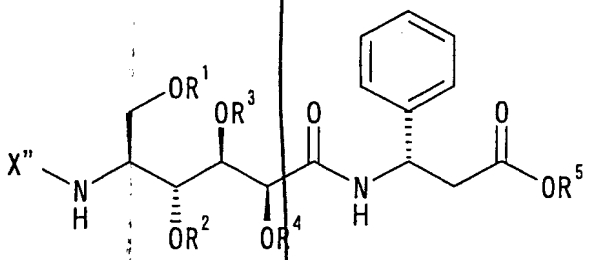
(II)

[wherein R^1, R^2, R^3 and R^4 are independently a protecting group for hydroxy group or a hydrogen atom, and R^5 is a protecting group for carboxyl group or a hydrogen atom], its salt or its reactive derivative at the amino group with a compound of the formula:

$$Y'—X'—OH \qquad (III)$$

[wherein X' is L-serine residue which may be protected, L-asparagine residue which may be protected or (S)-2-aminobutyric acid residue, and Y' is α-L-amino acid residue which may be protected], its salt or its reactive derivative at the carboxyl group, if necessary, followed by removing the protecting group.

23. A method for producing a compound claimed in claim 1, which comprises reacting a compound of the formula:



(IV)

[wherein X" is L-serine residue which may be protected, L-asparagine residue which may be protected or (S)-2-aminobutyric acid residue, R^1, R^2, R^3 and R^4 are independently a protecting group for hydroxy group or a hydrogen atom, and R^5 is a protecting group for carboxyl group or a hydrogen atom], its salt or its reactive derivative at the amino group with a compound of the formula:

$$Y'—OH \qquad (V)$$

[wherein Y' is α-L-amino acid residue which may be protected], its salt or its reactive derivative at the carboxyl group, if necessary, followed by removing the protecting group.